



Mr. Mark Verhey Humboldt County Health Department Division of Environmental Health 100 H Street, Suite 100 Eureka, California 95501 January 5, 2006

Re: Fourth Quarter 2005 Groundwater Monitoring Report

Former Totem Pole Market 580 South Fortuna Boulevard, Fortuna, CA HCDEH LOP No. 12028 Blue Rock Project No. NC-40

Dear Mr. Verhey,

This report presents the results of the fourth quarter 2005 groundwater monitoring activities at 580 South Fortuna Boulevard, Fortuna, Humboldt County, California (site) (Figure 1), and was prepared for Ms. Valerie Ellis by Blue Rock Environmental, Inc. (Blue Rock).

Background

Site Description

The former Totem Pole Market is located on the corner of South Fortuna Boulevard and First Street in Fortuna, California. The site is located in an area of low topographic relief and is considered part of the Eel River flood plain (Figure 1). The site contains one single-story building. The site formerly contained two 1,000-gallon gasoline and one 550-gallon used oil underground storage tanks (USTs) (Figure 2).

Site History

In 1977, Beacom Construction (Beacom) of Fortuna, California, on behalf of Mr. Marvin Fork, closed the two 1,000 gallon USTs in place by filling with a cement slurry under regulations of the time. In 1988, an Unauthorized Release Form was filed by Mr. Fork with Humboldt County. In 1990, LACO Associates (LACO) was retained to evaluate the site for possible overexcavation. LACO subsequently supervised the excavation of three test pits to determine the feasibility of overexcavation. In March 1994, the two 1,000-gallon gasoline USTs were removed by Haberstock Construction. At this time a third 550-gallon used oil UST was discovered and removed. The three USTs were transported to Erickson Inc of Richmond, CA. Following UST removal, approximately 180 cubic yards of petroleum hydrocarbon impacted soil was overexcavated and disposed of at B&J landfill in Vacaville, California.

Site Investigation History

Subsurface investigation activities have been ongoing at the site since 1995. A total of approximately 27 soil borings have been drilled and six monitoring wells (MW-1 through MW-3, MW-4S, MW-4D and MW-5D) have been installed at the site (Figure 2). Groundwater monitoring has been ongoing since the wells were installed. Based on site assessment performed to date, including soil and groundwater sampling from temporary soil borings and monitoring wells, the lateral and vertical extent of petroleum hydrocarbon impact to soil and groundwater associated with the subject release has been delineated. Soil and groundwater sample data are summarized on Tables 1 and 2, respectively.

Summary of Contaminant Type

The predominant contaminant types that have been detected in the subsurface include total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX), and the fuel oxygenates MTBE, TBA, ETBE, and TAME.

Summary of Hydrogeology

Based on boring logs generated by LACO, The first couple feet below grade consists of baserock fill. The site is underlain by sediments characterized primarily as clayey silt or silty clay (CL-ML) from ~2 feet bgs to depth of ~20 feet bgs. Intermittent layers of poorly graded sands have been encountered below 13 feet bgs. Saturated conditions have been encountered from approximately 4 to 8 feet bgs and again from approximately 13 feet bgs to 20 feet bgs. Data collected by LACO supports their interpretation of a two water-bearing zone model. Based on the data presented by LACO it appears MW-1 through MW-3 are screened across two water bearing zones.

Groundwater Monitoring - Fourth Quarter 2005

Groundwater Monitoring Field and Laboratory Activities

On December 14, 2005, six wells (MW-1, MW-2, MW-3 MW-4S, MW-4D and MW-5D) were monitored. Groundwater samples were subsequently collected from MW-1, MW-4S, MW-4D and MW-5D.

Prior to sampling, an electronic water level indicator was used to gauge depth to water in each well, accurate to within ± 0.01 -foot. All wells were checked for the presence of light non-aqueous phase liquid (LNAPL) petroleum prior to purging. No measurable thicknesses of LNAPL were observed on groundwater in any of the wells.

In preparation for sampling, the wells were purged of groundwater until sampling parameters (temperature, pH, and conductivity) stabilized.

Following recovery of water levels to approximately 80% of their static levels, groundwater samples were collected from the wells using disposable polyethylene bailers and transferred to laboratory supplied containers. Sample containers were labeled, documented on a chain-of-custody form, and placed on ice in a cooler for transport to the project laboratory.

Purging instruments were cleaned between use by an Alconox® wash followed by double rinse in clean tap water to prevent cross-contamination. Purge and rinseate water was stored on-site in labeled 55-gallon drums pending future removal and disposal.

Groundwater monitoring and well purging information is presented on Gauge Data/Purge Calculations and Purge Data sheets (attached).

Groundwater samples were analyzed by Kiff Analytical, a DHS-certified laboratory, located in Davis, California, for the following analytes:

- TPHg, BTEX, MTBE, DIPE, ETBE, TAME, TBA by EPA Method 5030/8260B.
- TPHd by EPA Method 8015 (with silica-gel clean-up on MW-1 only).

Groundwater Flow Direction and Gradient

Static groundwater in the wells on was present beneath the site at depths ranging from approximately 3.56 (MW-3) to 12.96 (MW-4D) feet bgs. The groundwater elevation in MW-4S, the only well screened in the shallow zone, and MW-3 screened across the shallow and deep zone were approximately 8 to 10 feet higher than groundwater elevations for all other wells at the site. Therefore, the remaining wells, which had more comparable groundwater elevations, were used to estimate groundwater flow conditions in the deeper zone.

Gauging data, combined with well elevation data, were used to calculate groundwater elevation, and to generate a groundwater elevation and gradient maps for this event. The groundwater flow directions calculated ranged from northwest to northwest at a gradient of approximately 0.078 ft/ft. As MW-1, 2, and 3 appear to be screened across two water bearing zones, groundwater elevations in these wells may be affected by both zones thus decreasing the reliability of the monitoring data collected from these wells. Groundwater flow direction for both the shallow and deep zone can be better evaluated following installation of the discretely screened wells which will occur in late January 2006.

Groundwater Contaminant Analytical Results

LNAPL: None

TPHg concentration: <50 μg/L (MW-4S, MW-4D MW-5D) to 1,000 μg/L (MW-1)

TPHd concentration <50 μg/L (MW-4D MW-5D) to < 500 μg/L (MW-1)

Benzene concentration: <0.50 μg/L (MW-4S, MW-4D MW-5D) to 0.69 μg/L (MW-1)

MTBE Concentration: <0.50 μg/L (MW-1, MW-4S, MW-4D MW-5D)

Groundwater sample analytical results are shown graphically on Figure 4. Cumulative groundwater sample analytical results are summarized in Table 1 and well construction details are summarized in Table 2. Copies of the laboratory report and chain-of-custody form are attached.

Project Status and Recommendations

- Blue Rock is in the process of obtaining access to the domestic well located at 478 S. Fortuna Blvd. This well will be sampled one access is obtained.
- Per the HCDEH letter dated December 19, 2005 Blue Rock will implement the workplan dated November 7, 2005. Drilling is planned for late January 2006.
- The questions posed by the HCDEH in the December 19, 2005 letter will be addressed in the report summarizing the upcoming drilling activities.
- The site is currently being monitored on a quarterly basis per the HCDEH directives. The
 next quarterly sampling event will be performed following the installation of the two nested
 well pairs and the destruction of MW-1, 2 and 3 (February 2006).

Certification

This report was prepared under the supervision of a California Professional Geologist at Blue Rock. All statements, conclusions, and recommendations are based upon published results from past consultants, field observations by Blue Rock, and analyses performed by a state-certified laboratory as they relate to the time, location, and depth of points sampled by Blue Rock. Interpretation of data, including spatial distribution and temporal trends, are based on commonly used geologic and scientific principles. It is possible that interpretations, conclusions, and recommendations presented in this report may change, as additional data become available and/or regulations change.

Information and interpretation presented herein are for the sole use of the client and regulating agency. The information and interpretation contained in this document should not be relied upon by a third party.

The service performed by Blue Rock has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site. No other warranty, expressed or implied, is made.

If you have any questions regarding this project, please contact us at (707) 441-1934.

Sincerely,

Blue Rock Environmental, Inc.

Prepared by:

Andrew LoCicero Project Scientist Reviewed by:

Brian Gwinn, PG Principal Geologist

Fourth Quarter 2005 Groundwater Monitoring Report Former Totem Pole Market January 5, 2006 Page 6 of 6

Attachments:

- · Table 1: Soil Analytical Data
- · Table 2: Groundwater Elevations and Analytical Data
- Table 3: Well Construction Details
- · Table 4: Groundwater Monitoring Schedule
- Figure 1: Site location Map
- · Figure 2: Site Plan
- Figure 3: Groundwater Elevations and Gradient 12/14/05
- Figure 4: Dissolved-Phase TPHg Distribution 12/14/05
- Blue Rock Gauge/Purge Calculations and Well Purging Data field sheets
- Laboratory Analytical Reports and Chain-of-Custody Forms

Distribution:

Val Ellis, PO Box 378, Miranda, CA 95553

Table 1 GROUNDWATER ELEVATIONS AND ANALYTICAL DATA Former Totem Pole Market 580 South Fortuna Boulevard

Fortuna, California Blue Rock Project No. NC-40

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH (feet)	GWE (feet)	TPHg (μg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethylbenzene (µg/L)	Xylenes (μg/L)	MTBE (μg/L)	TBA (μg/L)	DIPE (μg/L)	ETBE (μg/L)	TAME (µg/L)	Pb (µg/L
MW-1	8/12/96	98.70	13.92	0.00	84.78	1,700	<500	72	<3	24	72	<10	-	-	-	-	-
	9/9/96	98.70	14.40	0.00	84.30	-		-	-		-	-	-	-	-	-	_
Screen	10/8/96	98.70	14.40	0.00	84.30	-	-	-	-	-	-	-	_	-	-	-	-
5' - 15'	11/25/96	98.70	6.00	0.00	92.70	1,700	110	31	<5	38	59	<5	-	-	-		<2
	1/9/97	98.70	4.78	0.00	93.92	-		-	-	-			-			-	-
	2/4/97	98.70	4.92	0.00	93.78	930	330	1.8	<10	14	20	<5	-			-	
	3/19/97	98.70	10.05	0.00	88.65	-		-	-	-	-		-	-			_
	4/7/97	98.70	11.66	0.00	87.04	-	-	-	-	-				-	-	-	-
	5/1/97	98.70	12.11	0.00	86.59	790	480	1.3	2.7	5.9	16.7	<5	-	-	-	-	
	6/3/97	98.70	12.64	0.00	86.06	-	-	-	-	-	-	_	-				
	7/7/97	98.70	13.57	0.00	85.13	-		_	_		_	_	_			_	
	8/13/97	98.70	13.98	0.00	84.72	_	-	_	_	-		_	_	-		-	
	1/16/98	98.70	9.32	0.00	89.38	-		-	-	-		-					
	5/5/98	98.70	9.79	0.00	88.91	1,000	190	2.8	<2	15	<10	<5			-	-	
	2/22/99	98.70	7.61	0.00	91.09	_		-	-						-		
	3/5/99	98.70		0.00		830	120	<5	<5	12	<5	<5					
	5/3/01	98.70	12.22	0.00	86.48	4,700	300	14	<30	28	38	<30	-		-	_	
	9/4/01	98.70	13.95	0.00	84.75	-		-		-			-	-	_		
	11/9/01	98.70	13.90	0.00	84.80										_		
	2/25/03	98.70	9.54	0.00	89.16	1,900	140	0.85	< 0.5	5.5	0.74	<1	ND	3.90	ND	ND	
	5/16/03	98.70	7.82	0.00	90.88	1,500	220	< 0.5	< 0.5	3.8	<.5	<1	ND	4.30	ND	ND	
	8/6/03	98.70	13.59	0.00	85.11	2,000	280	1.4	< 0.5	4.4	1	<1	ND	3.0	ND	ND	
	11/11/03	98.70	13.97	0.00	84.73	2,000	-	4.3	< 0.5	3.4	1.8	<1	ND	ND	ND	ND	
	2/17/04	98.70	5.96	0.00	92.74	2,600	290	<.5	< 0.5	5.0	0.53	<1	ND	ND	ND	ND	
	5/14/04	98.70	12.31	0.00	86.39	2,200	140	1.2	< 0.5	3.0	1.31	<1	ND	ND	ND	ND	
	8/17/04	98.70	13.98	0.00	84.72	2,700	_	3.5	< 0.5	3.1	0.87	<1	ND	ND	ND	ND	
	11/30/04	98.70	13.96	0.00	84.74	2,900	_	10	<0.5	3.0	1	<1	ND	ND	ND	ND	
	2/28/05	58.63	8.75	0.00	49.88	3,700	160	<.5	< 0.5	4.4	0.6	<1	ND	2.3	ND	ND	
	5/2/05	58.63	10.17	0.00	48.46	3,200	330	0.66	<0.5	2.9	0.62	<1	ND	4.1	ND	ND	
	8/9/05	58.63	13.15	0.00	45.48		-		-				-				
	8/18/05	58.63	13.25	0.00	45.38	1,800	<1,000*	1.9	<0.5	1.9	< 0.5	< 0.5	9.7	5.2	< 0.5	< 0.5	
	12/14/05	58.63	11.20	0.00	47.43	1,000	<500*	0.69	<0.5	2.5	<0.5	<0.5	8.7	5.3	<0.5	<0.5	-

Table 1 GROUNDWATER ELEVATIONS AND ANALYTICAL DATA Former Totem Pole Market 580 South Fortuna Boulevard Fortuna, California Blue Rock Project No. NC-40

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH (feet)	GWE (feet)	TPHg (μg/L)	TPHd (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethylbenzene (µg/L)	Xylenes (μg/L)	MTBE (μg/L)	TBA (μg/L)	DIPE (μg/L)	ETBE (μg/L)	TAME (µg/L)	Pb (μg/L)
MW-2	8/12/96	99.45	17.17	0.00	82.28	<50	<500	< 0.5	< 0.5	<0.5	< 0.5	<5	ND	ND	ND	ND	-
	9/9/96	99.45	14.58	0.00	84.87	-	-		-	-	-	-	-	-	-	-	
Screen	10/8/96	99.45	14.56	0.00	84.89	-			-	-	-	-	-	-	-	-	
5' - 15'	11/25/96	99.45	4.70			<50	<500	< 0.5	< 0.5	< 0.5	0.77	<5	ND	ND	ND	ND	0.028
	1/9/97	99.45	4.39	0.00	95.06	-				-	-	-		-		-	
	2/4/97	99.45	3.20	0.00	96.25	<50	<500	< 0.5	< 0.5	< 0.5	< 0.5	69	ND	ND	ND	ND	
	3/19/97	99.45	4.36			-	-		-	-	-	-					
	4/7/97	99.45	10.02			-	-	-	-	-	-						
	5/1/97	99.45	4.79	0.00	94.66	<50	<500	< 0.5	0.55	< 0.5	1.59	<5	ND	ND	ND	ND	
	6/3/97	99.45	13.80	0.00	85.65	-			-	-	-	-		-	-	-	
	7/7/97	99.45	14.18	0.00	85.27	-	-		-	-	-	-		-	-	-	
	8/13/97	99.45	14.18	0.00	85.27				-	-	-	-					
	1/16/98	99.45	13.63	0.00	85.82				-	-	-	-	-	-	-	-	
	5/5/98	99.45	11.57	0.00	87.88	<50	<500	< 0.5	< 0.5	< 0.5	< 0.5	<5	ND	ND	ND	ND	
	2/22/99	99.45	12.65	0.00	86.80		-		-	-	-	-					
	3/5/99	99.45	8.51	0.00	90.94	<50	<500	< 0.5	< 0.5	< 0.5	< 0.5	<5	ND	ND	ND	ND	
	5/3/01	99.45	11.64	0.00	87.81	-			-	-	-	-	-	-	-	-	-
	9/4/01	99.45	14.08	0.00	85.37	<50	<500	< 0.5	< 0.5	< 0.5	< 0.5	<5	ND	ND	ND	ND	
	11/9/01	99.45	13.99	0.00	85.46					-							
	2/25/03	99.45	3.35	0.00	96.10												
	5/16/03	99.45	4.72	0.00	94.73											-	
	8/6/03	99.45	13.70	0.00	85.75											-	
	11/11/03	99.45	14.04	0.00	85.41												
	2/17/04	99.45	1.22	0.00	98.23	<50	<500	< 0.5	< 0.5	< 0.5	< 0.5	<5	ND	ND	ND	ND	
	5/14/04	99.45	12.74	0.00	86.71												
	8/17/04	99.45	14.20	0.00	85.25								-				
	11/30/04	99.45	13.03	0.00	86.42												
	2/28/05	58.97	2.92	0.00	56.05	<50	< 500	< 0.5	< 0.5	< 0.5	< 0.5	<5	ND	ND	ND	ND	
	5/2/05	58.97	10.08	0.00	48.89	**											
	8/9/05	58.97	14.03	0.00	44.94												
	8/18/05	58.97	14.03	0.00	44.94												
	12/14/05	58.97	8.04	0.00	50.93								-		-		

Table 1 GROUNDWATER ELEVATIONS AND ANALYTICAL DATA Former Totem Pole Market

580 South Fortuna Boulevard Fortuna, California Blue Rock Project No. NC-40

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH (feet)	GWE (feet)	TPHg (μg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethylbenzene (µg/L)	Xylenes (μg/L)	MTBE (μg/L)	TBA (μg/L)	DIPE (μg/L)	ETBE (μg/L)	TAME (µg/L)	Pb (μg/L)
MW-3	8/12/96	98.89	16.95	0.00	81.94	<50	<200	<0.5	< 0.5	<0.5	<0.5	<5		_	_	_	_
	9/9/96	98.89	13.93	0.00	84.96	-	-			-	-	-		-		-	-
Screen	10/8/96	98.89	14.79	0.00	84.10		-			-	-	-		-		-	
5' - 15'	11/25/96	98.89	2.54	0.00	96.35	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5					
	1/9/97	98.89	2.58	0.00	96.31	-	-	-	-	-	-	-			-	-	
	2/4/97	98.89	2.04	0.00	96.85	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5		-	-	-	-
	3/19/97	98.89	2.97	0.00	95.92		-	-	-	-	-	-		-	-		-
	4/7/97	98.89	3.31	0.00	95.58	-	-	-	-	-	-	-			-	-	-
	5/1/97	98.89	2.32	0.00	96.57	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5			-		-
	6/3/97	98.89	2.55	0.00	96.34		-	-	-		-	-		-		-	
	7/7/97	98.89	10.75	0.00	88.14		-	-	-	-	-	-	-	-	-	-	-
	8/13/97	98.89	14.14	0.00	84.75	-	-	-	-	-	-	-		-	-		
	1/16/98	98.89	0.51	0.00	98.38	-	-	-	-	-	-	-			-		-
	5/5/98	98.89	3.32	0.00	95.57	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5		-	-	-	
	2/22/99	98.89	1.00	0.00	97.89	-	-	-	-	-	-	-	-	-	-	-	
	3/5/99	98.89				<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5	-	-		-	-
	5/3/01	98.89	2.95	0.00	95.94	-	-	-	-	-	-	-			-	-	-
	9/4/01	98.89	14.15	0.00	84.74	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5					-
	11/9/01	98.89	11.39	0.00	87.50												
	2/25/03	98.89	4.24	0.00	94.65									-		-	-
	5/16/03	98.89	3.18	0.00	95.71									-		-	-
	8/6/03	98.89	14.02	0.00	84.87	-			-							-	-
	11/11/03	98.89	2.87	0.00	96.02									-		-	
	2/17/04	98.89	0.74	0.00	98.15	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	<1	ND	ND	ND	ND	ND
	5/14/04	98.89	9.12	0.00	89.77								-	-	-	-	-
	8/17/04	98.89	14.15	0.00	84.74						-			-	-	-	-
	11/30/04	98.89	3.26	0.00	95.63												
	2/28/05	58.85							-							-	
	5/2/05	58.85															
	8/9/05	58.85	12.64	0.00	46.21	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<5	< 0.5	< 0.5	< 0.5	
	8/18/05	58.85	13.82	0.00	45.03												
	12/14/05	58.85	3.56	0.00	55.29												

Table 1 GROUNDWATER ELEVATIONS AND ANALYTICAL DATA

Former Totem Pole Market 580 South Fortuna Boulevard Fortuna, California Blue Rock Project No. NC-40

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH (feet)	GWE (feet)	TPHg (μg/L)	TPHd (µg/L)	Benzene (μg/L)	Toluene (μg/L)	Ethylbenzene (µg/L)	Xylenes (μg/L)	MTBE (μg/L)	TBA (μg/L)	DIPE (μg/L)	ETBE (μg/L)	TAME (µg/L)	Pb (μg/L)
MW-4S	2/28/05	58.15	3.39	0.00	54.76	<50	<50	< 0.5	< 0.5	<0.5	<0.5	<1	ND	ND	ND	ND	_
Screen	5/2/05	58.15	3.57	0.00	54.58	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	<1	ND	ND	ND	ND	
4' - 9'	8/9/05	58.15	4.55	0.00	53.60	<50	67	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<5	< 0.5	< 0.5	< 0.5	
	8/18/05	58.15	6.70	0.00	51.45												
	12/14/05	58.15	3.95	0.00	54.20	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<5	< 0.5	< 0.5	<0.5	
MW-4D	2/28/05	58.03	11.93	0.00	46.10	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	<1	ND	ND	ND	ND	_
Screen	5/2/05	58.03	11.13	0.00	46.90	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	<1	ND	ND	ND	ND	
13' - 18'	8/9/05	58.03	13.22	0.00	44.81	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<5	< 0.5	< 0.5	< 0.5	
	8/18/05	58.03	13.66	0.00	44.37												
	12/14/05	58.03	12.96	0.00	45.07	<50	<50	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	<5	< 0.5	< 0.5	<0.5	-
MW-5	2/28/05	57.20	11.05	0.00	46.15	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	<1	ND	ND	ND	ND	
Screen	5/2/05	57.20	10.31	0.00	46.89	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	<1	ND	ND	ND	ND	-
15' - 20'	8/9/05	57.20	12.41	0.00	44.79	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<5	< 0.5	< 0.5	< 0.5	-
	8/18/05	57.20	12.86	0.00	44.34												
	12/14/05	57.20	12.04	0.00	45.16	<50	<50	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	<5	< 0.5	< 0.5	<0.5	-
					MCL			1.0	150	300	1,750	13					
			Taste an	d odor ti	reshold	5			42	29	17	5					
		NC	RWQCE	3 Cleanu	p Goals	50		0.5	42	29	17	5					

Notes:

TOC: Top of well casing referenced to arbitrary site benchmark until 3/02, MSL thereafter

DTW: Depth to water as referenced to top of casing SPH: Separate phase hydrocarbon on top of groundwater GWE: Groundwater elevation as referenced to benchmark

μg/L = micrograms per liter

TPHg: Total petroleum hydrocarbons as gasoline by Method 5030/8015M or 5030/8260B TPHd: Total petroleum hydrocarbons as diesel by Method 8015 (* = silica-gel clean-up)

MTBE: Methyl tertiary butyl ether by Method 8020 or 8260B

TBA: Tertiary butyl alcohol by Method 8260B DIPE: Di isopropyl ether by Method 8260B ETBE: Ethyl tertiary butyl ether by Method 8260B

TAME: Tertiary amyl methyl ether by method 8260B

MCL: Maximum contaminant level

NCRWQCB: North Coast Region Water Quality Control Board

Table 2
WELL CONSTRUCTION DETAILS

Former Totem Pole Market 508 South Fortuna Boulevard Fortuna, California Blue Rock Project No. NC-40

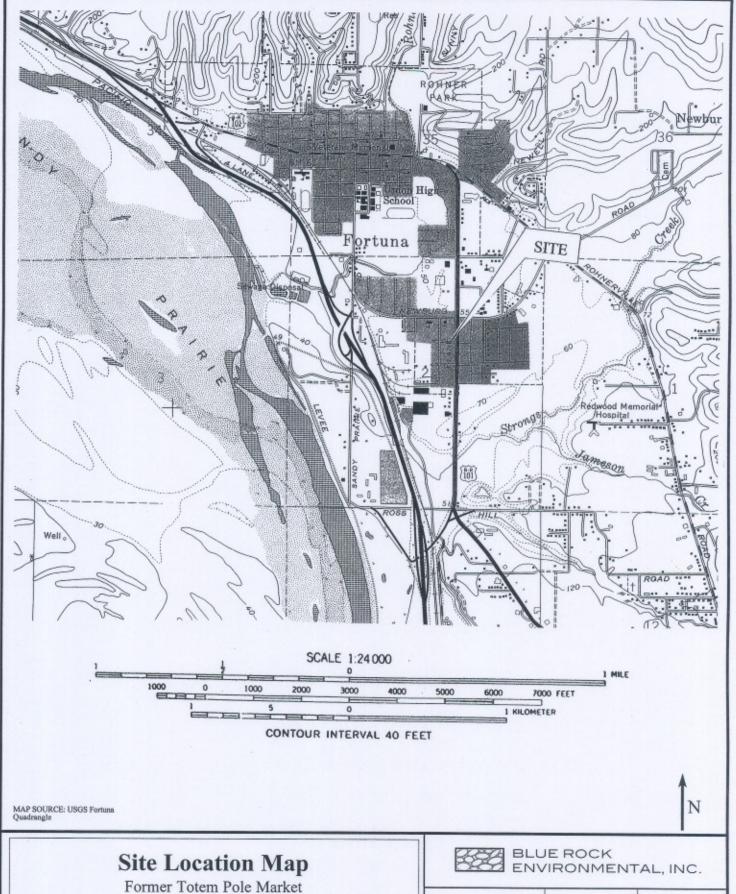
Monitoring Well Identification	Date Intstalled	Intstalled by	Casing Diameter (inches)	Total Depth (feet)	Blank Interval (feet)	Screened Interval (feet)	Slot Size (inches)	Filter Pack (feet)	Bentonite Seal (feet)	Cement Grout (feet)
MW-1	6/25/96	Laco	2	15	0-5	5-15	0.01	4-15	2-4	0-2
MW-2	6/25/96	Laco	2	15	0-5	5-15	0.01	4-15	2-4	0-2
MW-3	6/25/96	Laco	2	15	0-5	5-15	0.01	4-15	2-4	0-2
MW-4S	2/5/05	Laco	2	9	0-4	4-9	0.01	3-9	1-3	0-1
MW-4D	2/5/05	Laco	2	18	0-13	13-18	0.01	12-18	10-12	0-10
MW-5	2/5/05	Laco	2	20	0-15	15-20	0.01	14-20	12-14	0-12

Table 3 GROUNDWATER MONITORING SCHEDULE

Former Totem Pole Market, 580 South Fortuna Boulevard, Fortuna, CA Blue Rock Project # NC-40

Well	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Notes
MW-1	X	х	Х	Х	Impacted well
/W-2	X				ND well
MW-3	X				ND well
MW-4S	X	X	X	X	ND well, new well
MW-4D	X	X	X	X	ND well, new well
MW-5	X	X	X	X	ND well, new well

Samples from monitoring wells will be analyzed for TPHd, TPHg, BTEX and 5 fuel oxys by EPA Method 8015M and 5030/8260B.

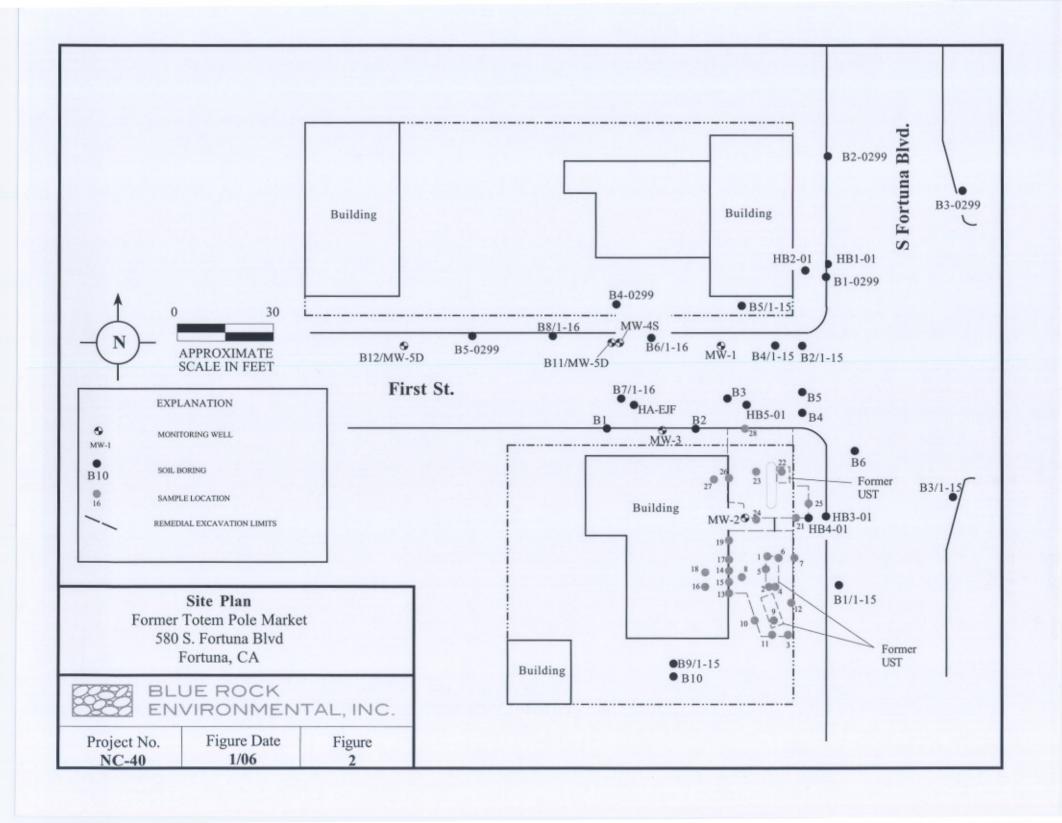


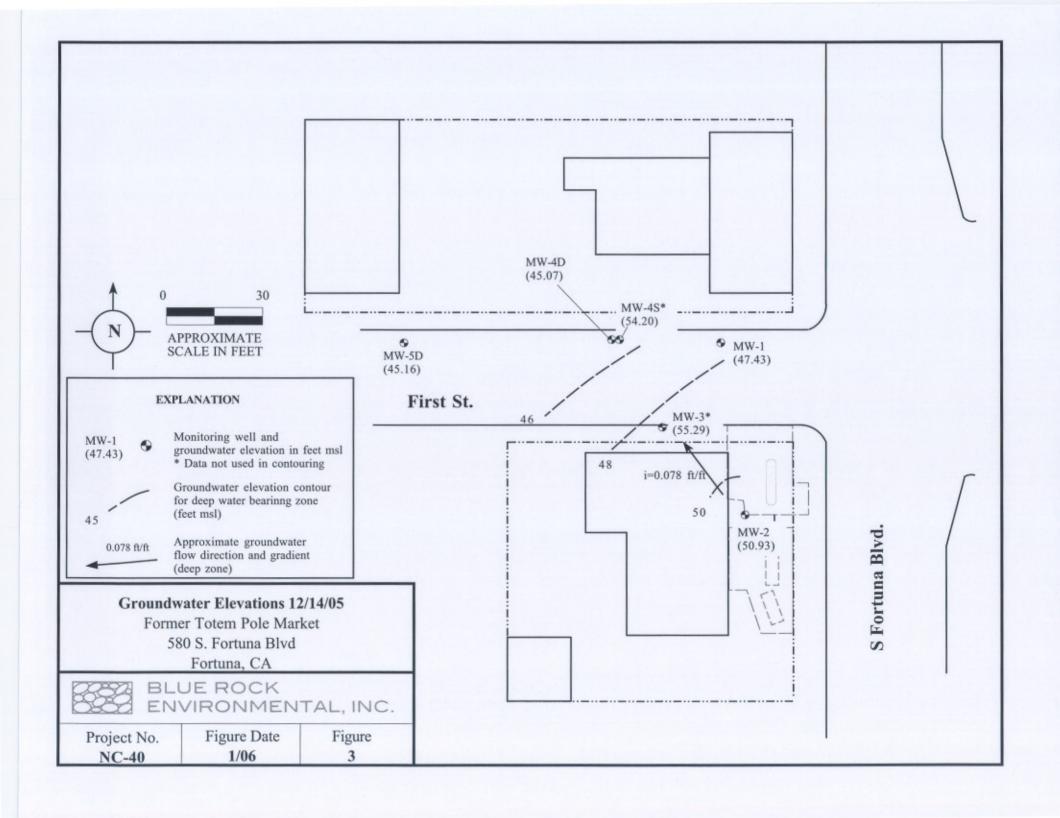
Former Totem Pole Market 580 South Fortuna Boulevard Fortuna, California

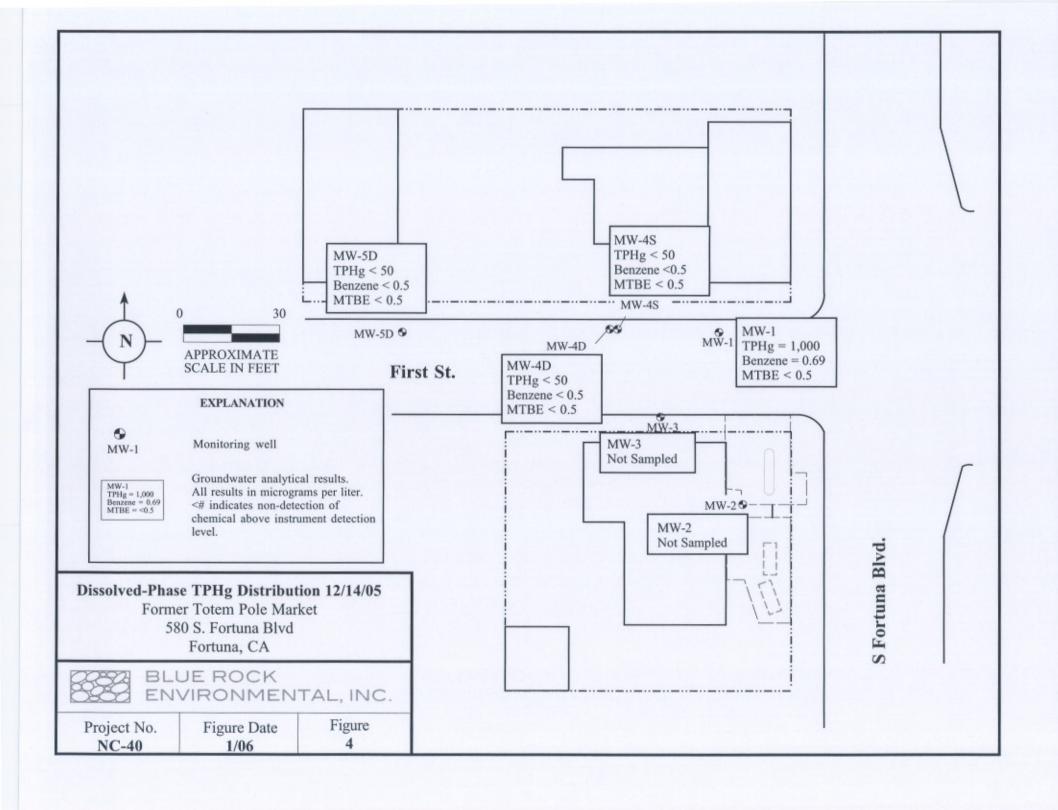
Project No.
NC-40

Date	
1/06	

Figure 1







GAGING DATA/PURGE CALCULATIONS

	Job No.:	NC-40	Location:	580 5.	Fortun	a Blud,	Date: 1Z	14/05	Tech(s): JL
	WELL NO.	DIA. (in.)	DTB (ft.)	DTW (ft.)	ST (ft.)	CV (gal.)	PV (gal.)	SPH (ft.)	NOTES
-	MW-1	2"	14,33	11,20		2.50	1,50	0	
	MW-2	1	14.68	8,04					
	MW-3		14.64	3.56					
-	MW-45	pris	118.25	3.95	4,60	0.73	2.19	0	
	MW-40		8,55	12.96	5.29	0.84	2.52	0	
	MW-5	V	19.70	12.04	7.66	1.22	3.66	0	/
						•			

Explanation:

DIA. = Well Diameter

DTB = Depth to Bottom

DTW = Depth to Water

ST = Saturated Thickness (DTB-DTW)

CV = Casing Volume (ST x cf)

PV = Purge Volume (standard 3 x CV, well development 10 x CV)

SPH = Thickness of Separate Phase Hydrocarbons

Conversion Factors (cf):

2 in. dia. well cf = 0.16 gal./ft.

4 in. dia. well cf = 0.65 gal./ft.

6 in. dia. well cf = 1.44 gal./ft.



PURGING DATA

Location: 580 S. Fortuna BludDate: 12/14/05 Tech: Job No .: NC -40 TEMP. WELL TIME VOLUME COND. pH No. (mS/cm) (gal.) (deg. F.) Sample for: MW-1 50XX 9:55 0,25 TPHg Calc. purge TPMd 8260 6.20 10100 0.75 BYEX volume **MTBE** Metals 10:05 well 1,50 Purging Method: 2 60 PVC bailer Pump COMMENTS: color, turbidity, recharge, sheen Sampling Method: OBOV mod, Dedicated / Disposable bailer Sample at: 10:10 WELL TIME VOLUME COND. TEMP. pH No. (gal.) (mS/cm) (deg. F.) MW-45 Sample for: 5 OXY 57,0 5.42 9:35 240 0.25 TPHg 8260 Calc. purge 5,45. 9:40 228 1,25 volume MTBE Metals 9:45 2,20 Well Purging Method: gallons PVC bailer Pump COMMENTS: color, turbidity, recharge, sheen Sampling Method: Dedicated / Disposable bailer Clear odor mode ADOR Sample at: 9:50 VOLUME COND. TEMP. WELL TIME pH No. (gal.) (mS/cm) (deg. F.) 5 OXY MW-40 Sample for: 5,92 296 0.25 9:15 TPAg TEHd 8260 Calc. purge 5,81 9:20 1,50 BTEX MTBE Metals volume 9:25 2,52 2,50 well dur Purging Method: Kallons PVC bailer Pump COMMENTS: color, turbidity, recharge, sheen Sampling Method: Dedicated / Disposable baller Sample at:

Job No.: /	C-40	Location: 5	8005	Forlum	(3/ Pate: 12)	14/85 Tech: JL
WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-5						Sample for: 50XY
Calc. purge	8:55	0.25	492	57,7	7.10	трубу руна 8260
volume	9:00	1,50	360	59,8	6,52	BTEX MTBE Metals
3.66	9:05	3.65	315	60.1	6.40	Purging Method:
						PVC bailer / Pump
	COMMENT	S: color, turb	oidity, recharg			Sampling Method:
	clear	1 mod, 1	med.	steen	lodor	Dedicated / Disposable bailed
WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pН	Sample at: 9:10
						Sample for: 5 0× y
Calc. purge						TPMg TPHd 8260
volume						BTEX MTBE Metals
						Purging Method:
						PVC bailer / Pump
	COMMENT	S: color, turb	oidity, rechar	ge, sheen		Sampling Method:
						Dedicated / Disposable bailer
WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pН	Sample at:
						Sample for:
Calc. purge						TPMg TPMd 8260
volume						BTEX MTBE Metals
						Purging Method:
						PVC bailer / Pump
	COMMENT	ΓS: color, turl	bidity, rechar	ge, sheen		Sampling Method:
						Dedicated / Disposable bailer
						Sample at:



Date: 12/20/2005

Andrew LoCicero Blue Rock Environmental, Inc. 535 3rd Street, Suite 100 Eureka, CA 95501

Subject: 4 Water Samples

Project Name: Former Totem Pole Market

Project Number: NC-40

Dear Mr. LoCicero,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Subject:

4 Water Samples

Project Name : Former Totem Pole Market

Project Number: NC-40

Case Narrative

The Method Reporting Limit for TPH as Diesel is increased due to interference from Gasoline-Range Hydrocarbons for sample MW-1.

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By: Jde Kiff

Report Number: 47440 Date: 12/20/2005



Project Number: NC-40

Report Number: 47440

Date: 12/20/2005

Sample: MW-1 Matrix: Water Lab Number: 47440-01

Sample Date :12/14/2005

Sample Date :12/14/2005					
Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.69	0.50	ug/L	EPA 8260B	12/18/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Ethylbenzene	2.5	0.50	ug/L	EPA 8260B	12/18/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Diisopropyl ether (DIPE)	5.3	0.50	ug/L	EPA 8260B	12/18/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Tert-Butanol	8.7	5.0	ug/L	EPA 8260B	12/18/2005
TPH as Gasoline	1000	50	ug/L	EPA 8260B	12/18/2005
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	12/18/2005
4-Bromofluorobenzene (Surr)	90.8		% Recovery	EPA 8260B	12/18/2005
TPH as Diesel (Silica Gel)	< 500	500	ug/L	M EPA 8015	12/17/2005
Octacosane (Diesel Surrogate)	92.0		% Recovery	M EPA 8015	12/17/2005

Approved By:



Project Number: NC-40

Report Number: 47440

Date: 12/20/2005

Sample: MW-4S

Matrix: Water

Lab Number: 47440-02

Sample Date :12/14/2005 Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/18/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/18/2005
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	12/18/2005
4-Bromofluorobenzene (Surr)	87.6		% Recovery	EPA 8260B	12/18/2005
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/17/2005
Octacosane (Diesel Surrogate)	94.6		% Recovery	M EPA 8015	12/17/2005

Approved By:



Project Number: NC-40

Report Number: 47440

Date: 12/20/2005

Sample: MW-4D Matrix: Water Lab Number: 47440-03

Sample Date :12/14/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005	
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005	
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005	
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005	
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005	
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L ug/L ug/L	EPA 8260B	12/18/2005	
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50		EPA 8260B	12/18/2005	
Tert-amyl methyl ether (TAME)	< 0.50	0.50		EPA 8260B	12/18/2005	
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/18/2005	
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/18/2005	
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	12/18/2005	
4-Bromofluorobenzene (Surr)	89.3		% Recovery	EPA 8260B	12/18/2005	
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/17/2005	
Octacosane (Diesel Surrogate)	95.0		% Recovery	M EPA 8015	12/17/2005	

Approved By:



Project Number: NC-40

Report Number: 47440

Date: 12/20/2005

Sample: MW-5 Matrix: Water Lab Number: 47440-04

Sample Date :12/14/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	12/18/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/18/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/18/2005
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	12/18/2005
4-Bromofluorobenzene (Surr)	90.4		% Recovery	EPA 8260B	12/18/2005
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/17/2005
Octacosane (Diesel Surrogate)	95.6		% Recovery	M EPA 8015	12/17/2005

Approved By:

Date: 12/20/2005

QC Report : Method Blank Data

Project Name: Former Totem Pole Market

Project Number: NC-40

Parameter	Measured Value	Method Reportir Limit	ng Units	Analysis Method	Date Analyzed	
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/17/2005	
Octacosane (Diesel Surrogate)	93.2		%	M EPA 8015	12/17/2005	
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005	
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005	
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005	
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005	
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005	
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005	
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005	
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005	
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/17/2005	
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/17/2005	
Toluene - d8 (Surr)	98.0		96	EPA 8260B	12/17/2005	
4-Bromofluorobenzene (Surr)	99.7		%	EPA 8260B	12/17/2005	

	Measured	Method Reporti		Analysis	Date	
Parameter	Value	Limit Units		Method	Analyzed	

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC 2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Date: 12/20/2005

Project Name: Former Totem Pole Market

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Number: NC-40

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Percent		Relative	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	Blank	<50	1000	1000	748	753	ug/L	M EPA 8015	12/17/05	74.8	75.3	0.626	70-130	25
Benzene	47454-01	<0.50	39.7	39.0	43.9	42.5	ug/L	EPA 8260B	12/17/05	111	109	1.43	70-130	25
Toluene	47454-01	< 0.50	39.7	39.0	43.2	41.4	ug/L	EPA 8260B	12/17/05	109	106	2.44	70-130	25
Tert-Butanol	47454-01	<5.0	198	195	197	200	ug/L	EPA 8260B	12/17/05	99.1	102	3.38	70-130	25
Methyl-t-Butyl Eth	er 47454-01	14	39.7	39.0	53.9	52.6	ug/L	EPA 8260B	12/17/05	102	100	1.54	70-130	25

Approved By: Joe Kiff

KIFF ANALYTICAL, LLC

Date: 12/20/2005

QC Report : Laboratory Control Sample (LCS)

Project Name: Former Totem Pole Market

Project Number: NC-40

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit	
Benzene	40.0	ug/L	EPA 8260B	12/17/05	102	70-130	
Toluene	40.0	ug/L	EPA 8260B	12/17/05	98.4	70-130	
Tert-Butanol	200	ug/L	EPA 8260B	12/17/05	99.4	70-130	
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/17/05	101	70-130	

Analytical us	5 2nd Street, Suite is, CA 95616 530.297.4800 530.297.4802	300	SRG # / Lab	No.	47	440		Pag	ge <u>i</u> of <u>l</u>
Project Contact (Hardcopy or PDF To):	California EDI	F Report? Yes	□ No		Chain-o	f-Custody	y Record and	1 Analysis	Request
Company / Address: Blue Rock Env. Inc	, Sampling Cor	mpany Log Code:			Analysis Request				TAT
535 3rd st. ste. 100 Eurela. Phone #: (707) 441-1934 (707) 441-194 Project #: Project Name: Former Totem Pole Marke Project Address: 580 S. Fortuna Blvd. Fortuna, (A	EDF Deliveral Andrew Sampler Sign Contain	James Linders	V. Com Mon Matrix	A 8260B) per EPA 8021 level © 5.0 ppb A 8260B) © 0.5 ppb	BTEX (EPA 8260B) TPH Gas (EPA 8260B) 5 Oxygenates (EPA 8260B)	7 Oxygenates (EPA 82608) Lead Scav. (1,2 DCA & 1,2 EDB-EPA 82608) Volatile Halocarbons (EPA 82608)	Volatile Organics Full List (EPA 8260B) Volatile Organics (EPA 524.2 Drinking Water) TPH as Diesel (EPA 8015M) Silica Gel TPH as Motor Oil (EPA 8015M)	PA 6	12 hr 12 hr 24 hr 48 hr 97 hr
Sample Designation Date Tin		HOO3 None	Soil	MTBE (EPA 8260B) MTBE (EPA 8260B)	BTEX (EPA TPH Gas (E 5 Oxygenate	7 Oxygena Lead Scan Volatile H	Volatile Organics Volatile Organics TPH as Diesel (E	Total Lead (⊠ 1 wk
MW-1 12/14/0510:			K		XXX		HX.		XO
MW-45 19:5	506		X		XXX		X		X 00
MW-4D 9:3	306		$M \perp I \perp I$		X X X				I X a
MW-5 ♥ 9:1	106	X			XXX				XO
Relinquished by: Date 12	114 05 Time	Received by: Fed E Received by:	×		Remarks:				
					Bill to:				
Relinquished by: Date	Time	Received by Laboratory:				For t	ab Use Only:	Sample Receip	pt
121	505 100	Tomos Akem K	HAralta/U	16	Temp °C	Initials	Date (21505	Time The	Print ID # Coolant Present

(Yes) No

Distribution: White - Lab; Pink - Originalor Rev: 051805